



GLOBAL EQUITIES TACTICAL ASSET ALLOCATION

A Novel
Business Cycle
Tactical Asset Allocation Strategy

January, 2023

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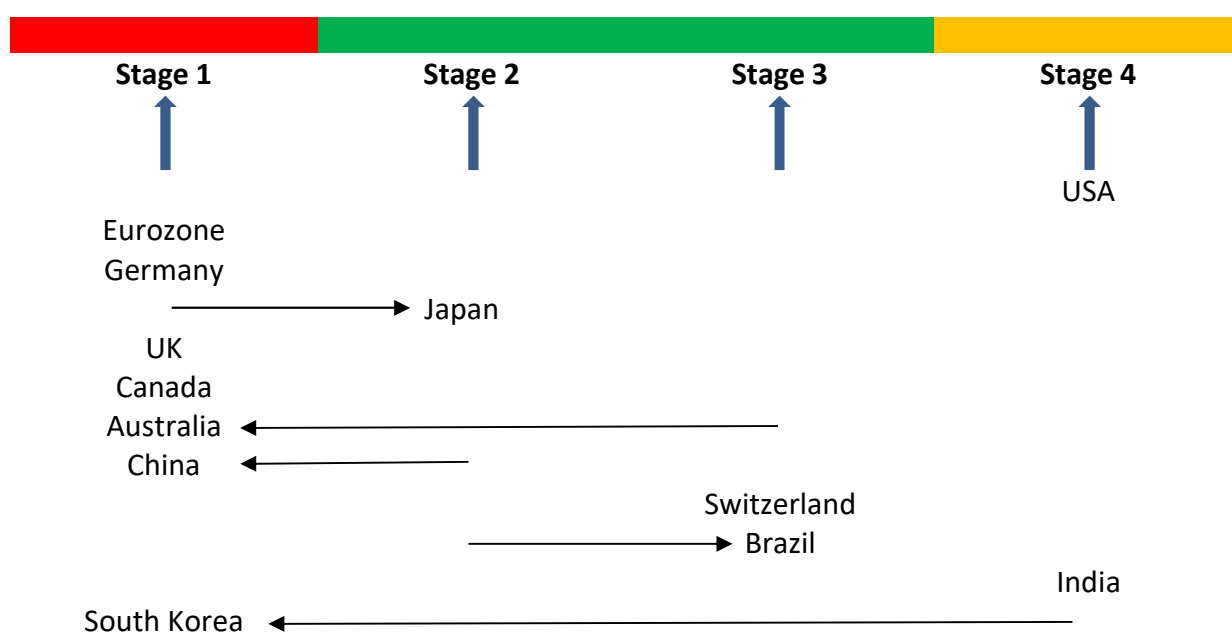
“Optimal country and sector selection provides a sound basis for the subsequent selection of the best stocks. Our proprietary Tactical Asset Allocation framework allows investors to apply proven economic fundamentals in a focused way to prioritise countries and sectors and then choose the right companies. This is made possible by our ability to forecast with considerable accuracy the future stages of the business cycle using our proprietary leading index.”

Summary Sector Matrix

AASE Business Cycle Sector Selection for January 2023

	USA	Eurozone	Germany	Japan	UK	Australia	Canada	China	Brazil	India	S.Korea
Business Cycle Stage (1-4)	4	1	1	2	1	1	1	1	3	4	1
Consumer Discretionary				•					•		
Consumer Staples	•	•	•		•	•	•	•	•	•	•
Financials									•		
Industrials				•							
Materials				•					•		
Energy				•					•		
IT				•							
Telecom Services				•					•		
Healthcare	•	•	•		•	•	•	•		•	•
Utilities	•		•			•		•			•

Equities Business Cycle Risk Spectrum¹



¹Red denotes the most defensive stage and thus the highest risk aversion. Orange denotes moving into defensive stage and the Green stages denotes a more beneficial environment for equities in general

Global Equities Tactical Asset Allocation

This report describes a highly dynamic equities tactical asset allocation framework which delivers specific country capital allocations down to the sector level. The markets covered in the sector analysis are:

- | | |
|-------------|---------------|
| - US | - Brazil |
| - UK | - Switzerland |
| - Japan | - Canada |
| - Germany | - India |
| - Australia | - South Korea |
| - China | - Hong Kong |

All of the sectors within these markets are available for allocation.

There are two components to the process:

- Country Weightings
- Sector Weightings

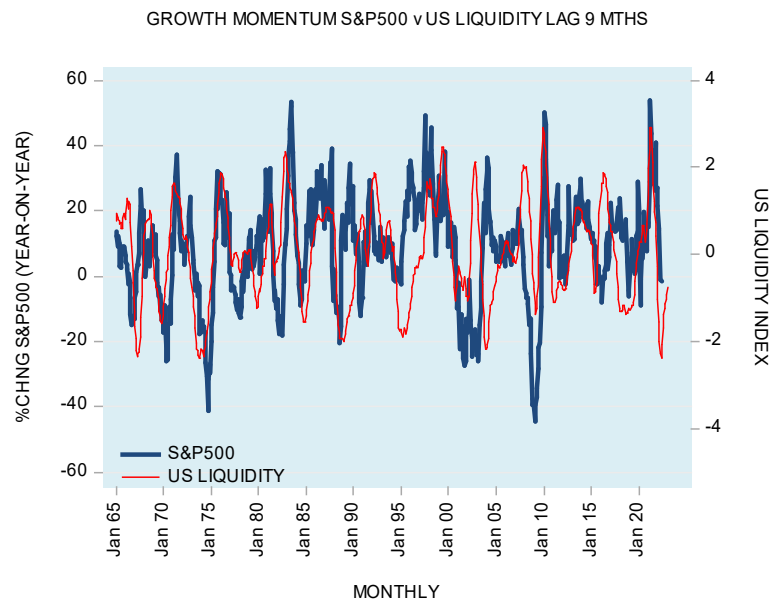
Country Weightings

Historically we can observe that equities as an asset class tend to exhibit higher returns during the more expansive phases of the business cycle. As described in the Framework section at the end of this document, these are Stages 2 and 3 of the business cycle. The cycle itself is a function and product of fluctuations in the rate of growth of money supply, which provide a very reliable leading indicator of business activity, and these Stages 2 and 3 correspond to periods of expansion in (lagged) money supply.

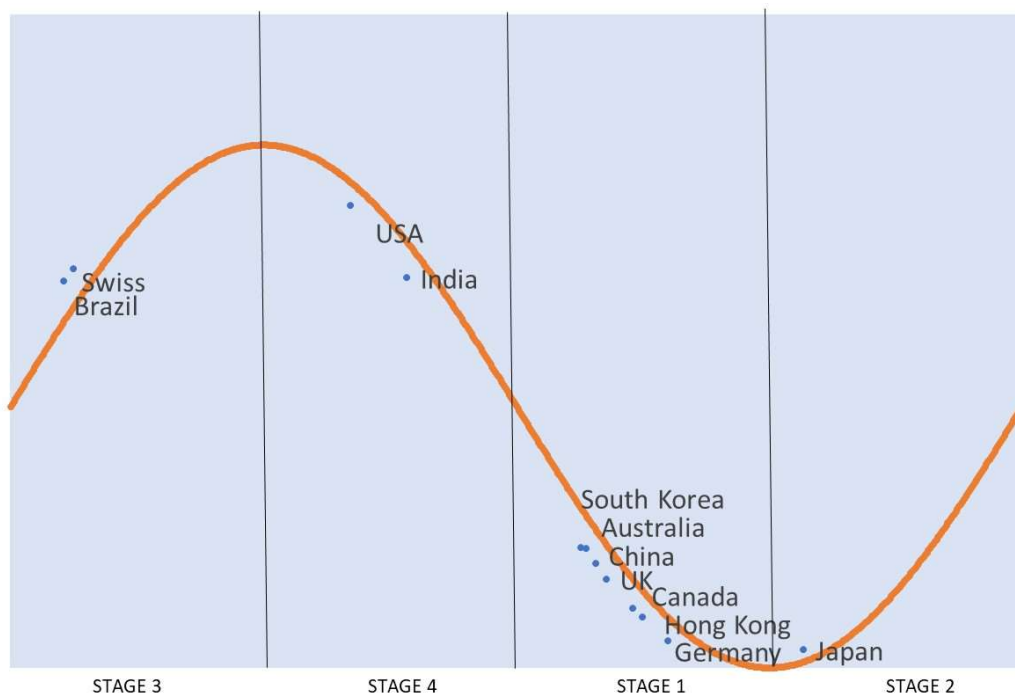
This money supply information allows us to predict the business cycle and construct a relative weighting strategy based on where each country is situated in its cycle. Furthermore, as our process is driven solely by the money supply, we gain the benefit of being able to construct a monetary roadmap showing which country's business cycle environment is relatively more favourable for equities when compared to that of other countries'.

Thus countries in the more **expansive Stages 2 and 3 rank higher** and attract a larger weighting than those in Stages 1 and 4.

Where we have multiple countries with the same cycle stage we use **Liquidity** in determining ranks and thereby allocations. Liquidity is a measure of the difference in growth rates of money supply and of money demand. An example of the utility of this Liquidity index is shown in the chart below.



Below is a visual illustration of where each country will be in the business cycle for the upcoming month.



By combining the business cycle staging with our Liquidity measure we derive a country rank, the current state of which is shown in the table below.

Business Cycle Equities Monetary Environment Ranking February 2023	
Japan	1
Swiss	2
Brazil	3
USA	4
India	5
S.Korea	6
Australia	7
China	8
UK	9
Canada	10
Hong Kong	11
Germany	12

At the global level, then, country weightings are determined by a combination of:

- Business cycle stage
- Value of our Liquidity variable when multiple countries share the same cycle stage

Sector Weightings

Sector allocation in each country is determined as per our sector allocation framework described in detail in the Framework section at the end of this report.

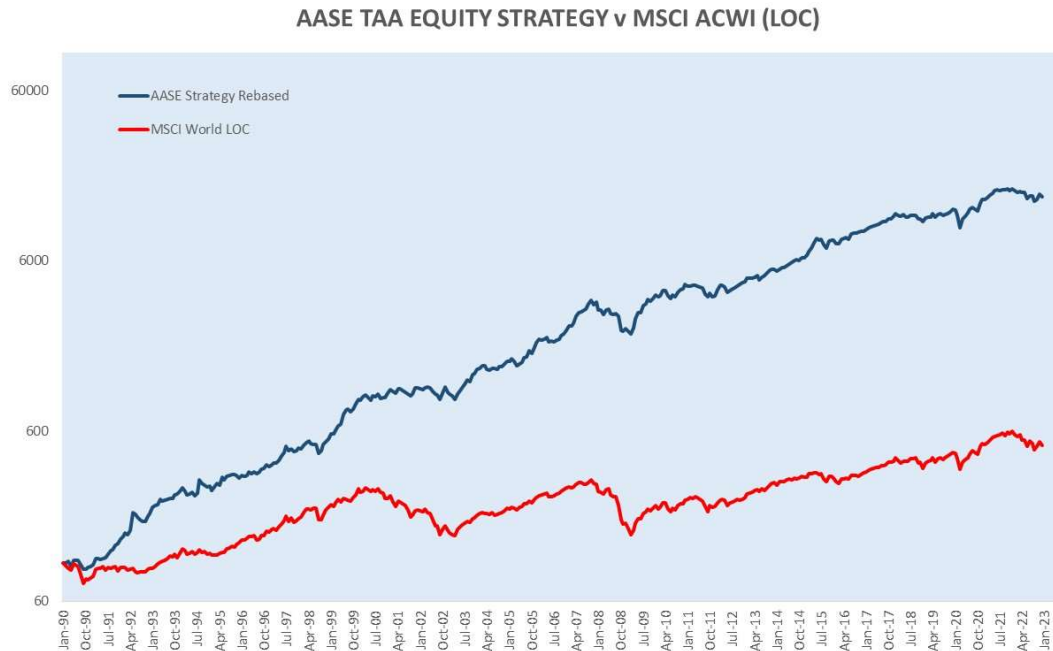
In summary, different sectors of the stock market perform better in some stages of the business cycle than do other sectors. By predicting the stages of the cycle using lagged money supply growth calculations we can proactively select those sectors which have historically performed better in the upcoming stages of the cycle, thus allowing us to overweight those sectors in the portfolio.

Combining Country and Sector Weightings: Global Tactical Asset Allocation

Thus, by combining business cycle stage and Liquidity we construct a composite weighting for each country. Sectors within each country are then weighted according to the country-level business cycle allocation approach.

This delivers a global equities tactical asset allocation portfolio the notional performance characteristics of which are shown below.

Global TAA Portfolio

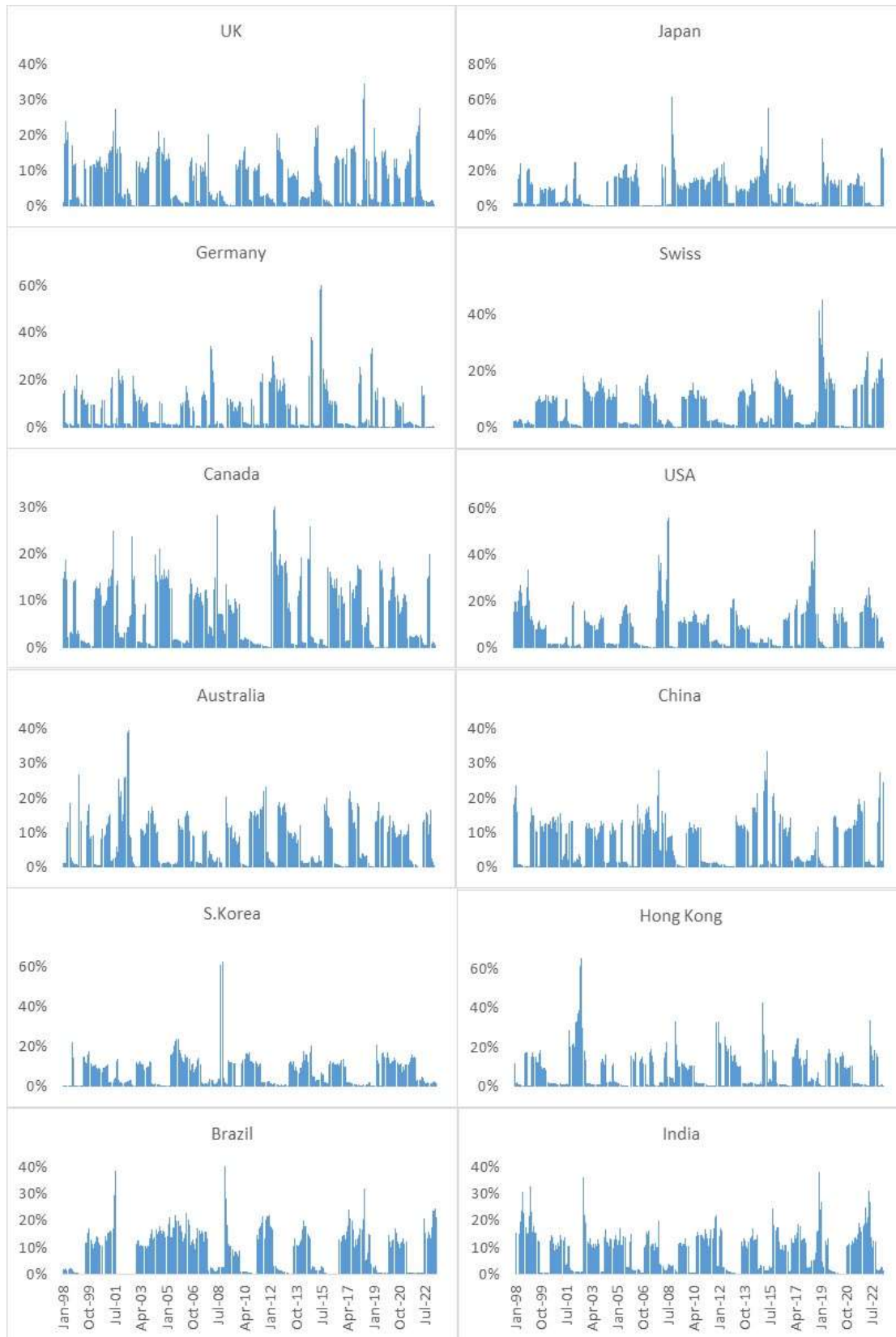


	AASE TAA EQUITY STRATEGY	MSCI ACWI (LOC)
CAGR*	16.14%	4.98%
Maximum Drawdown	-36.5%	-52.4%
Standard Deviation	15.6%	14.2%
Return/Drawdown	0.44	0.10
Sharpe 3%	0.84	0.14
% Positive Years	84.4%	68.8%
2022	-10.2%	-17.5%
2021	16.5%	19.1%
1 Year Return	-10.2%	-17.5%
3 Year Return	18.7%	10.4%

*Compound Annual Growth Rate

Historical country allocations are shown in the tables below.

MONTHLY BUSINESS CYCLE COUNTRY WEIGHTINGS



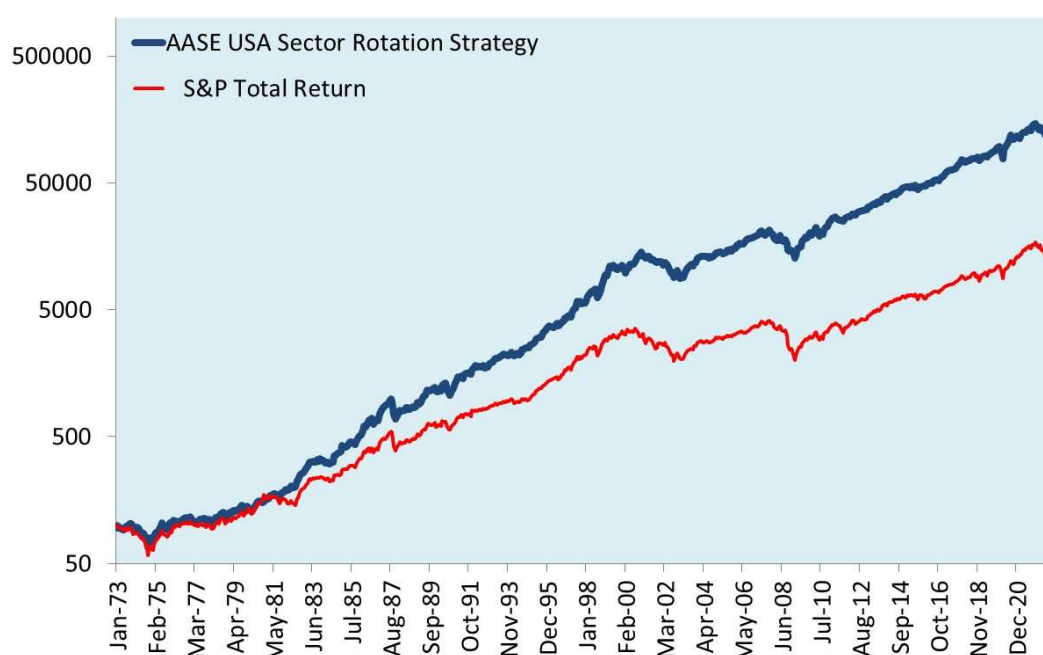
In the sections below we provide a description of the country-level sector allocations and country-level notional portfolio performance.

U.S.

For the month of February our business cycle leading index (see **The Framework** section below for a detailed explanation) indicates that the US economic cycle **remains in Stage 4** (see **Notes for weightings*). Historically sectors which have performed well in this defensive stage include:

- Consumer Staples
- Health
- Utilities

Below we present the proforma results of our sector selection strategy for the US.



ANALYSIS	AASE Approach*	S&P Total Return
Feb-1973 to Dec-2022		
CAGR*	15.50%	10.37%
Max Drawdown	-39.8%	-50.9%
Std Dev	15.9%	15.5%
Return/Drawdown	0.39	0.20
Sharpe 3%	0.79	0.47
% Positive Years	84.0%	78.0%
2022	-9.4%	-18.1%
2021	24.9%	28.7%
1 Year Return	-9.4%	-18.1%
3 Year Return	40.4%	24.8%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	S&P Total Return		AASE Approach	S&P Total Return
1973	-2.58%	-13.40%	1998	52.18%	28.58%
1974	-24.93%	-26.46%	1999	31.53%	21.04%
1975	40.44%	37.22%	2000	27.23%	-9.10%
1976	14.68%	23.93%	2001	-16.65%	-11.89%
1977	-5.01%	-7.16%	2002	-23.39%	-22.10%
1978	7.09%	6.57%	2003	40.38%	28.68%
1979	17.74%	18.61%	2004	9.80%	10.88%
1980	13.13%	32.50%	2005	8.89%	4.91%
1981	15.34%	-4.92%	2006	22.66%	15.79%
1982	42.09%	21.55%	2007	4.57%	5.49%
1983	23.78%	22.55%	2008	-24.81%	-37.00%
1984	18.06%	6.27%	2009	37.99%	26.46%
1985	32.91%	31.73%	2010	20.49%	15.06%
1986	30.27%	18.67%	2011	10.68%	2.11%
1987	11.50%	5.25%	2012	13.66%	16.00%
1988	16.38%	16.61%	2013	26.51%	32.39%
1989	43.17%	31.68%	2014	17.68%	13.69%
1990	-2.92%	-3.10%	2015	2.80%	1.38%
1991	40.99%	30.47%	2016	16.57%	11.96%
1992	14.13%	7.62%	2017	28.95%	21.83%
1993	15.00%	10.08%	2018	4.87%	-4.38%
1994	14.26%	1.32%	2019	27.43%	31.49%
1995	42.65%	37.58%	2020	24.00%	18.40%
1996	17.18%	22.96%	2021	24.92%	28.71%
1997	32.88%	33.36%	2022	-9.35%	-18.11%

Recent Cycle Stages

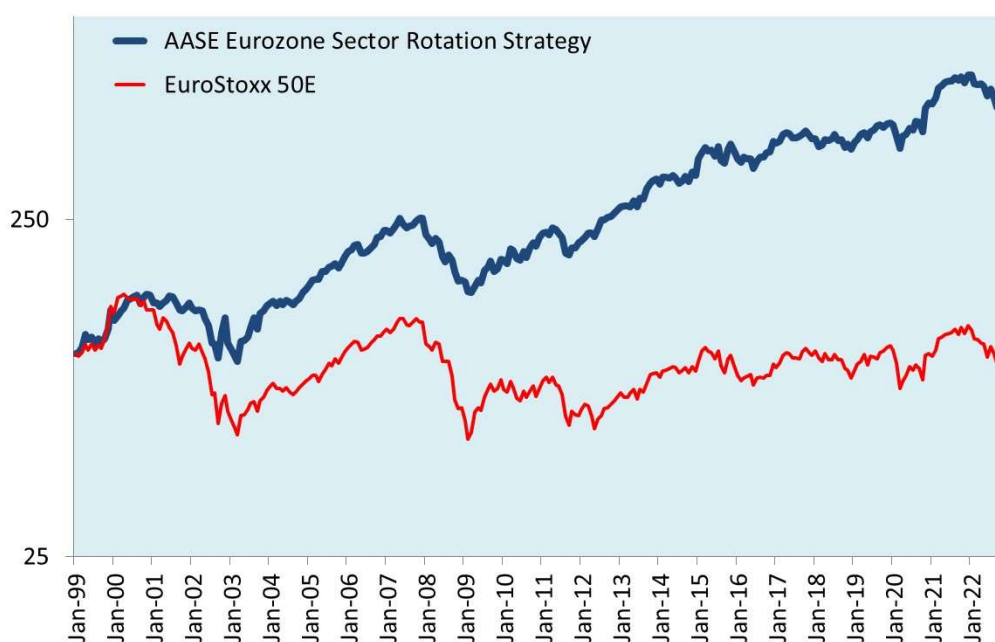
		Subsequent Month Return	S&P Total Return
Dec-21	STAGE 2	1.9%	4.5%
Jan-22	STAGE 2	-6.84%	-5.17%
Feb-22	STAGE 2	-3.7%	-3.0%
Mar-22	STAGE 3	4.21%	3.71%
Apr-22	STAGE 3	-6.8%	-8.7%
May-22	STAGE 3	4.90%	0.18%
Jun-22	STAGE 3	-12.0%	-8.3%
Jul-22	STAGE 3	7.37%	9.22%
Aug-22	STAGE 3	-1.7%	-4.1%
Sep-22	STAGE 3	-9.72%	-9.21%
Oct-22	STAGE 3	12.8%	8.1%
Nov-22	STAGE 3	6.88%	5.59%
Dec-22	STAGE 4	-2.0%	-5.8%

Eurozone

For the month of February our business cycle leading index indicates that the Eurozone economic cycle **remains in Stage 1** (see **Notes for weightings*). Historically sectors which have performed well in this stage include:

- Consumer Staples
- Health

Below we present the proforma results of our sector selection strategy for the Eurozone.



ANALYSIS	AASE Approach*	Stoxx 50E
Jan-1999 to Dec-2022		
CAGR*	7.5%	0.3%
Max Drawdown	-39.9%	-62.7%
Std Dev	15.8%	18.5%
Return/Drawdown	0.19	0.00
Sharpe 3%	0.29	-0.15
% Positive Years	75.0%	62.5%
2022	-15.2%	-11.7%
2021	21.2%	21.0%
1 Year Return	-15.2%	-11.7%
3 Year Return	18.2%	1.3%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	Stoxx 50E		AASE Approach	Stoxx 50E
1999	25.26%	32.06%	2011	-3.48%	-17.05%
2000	10.57%	-2.69%	2012	24.25%	13.79%
2001	-5.44%	-20.25%	2013	24.57%	17.95%
2002	-23.74%	-37.30%	2014	2.13%	1.20%
2003	28.83%	15.68%	2015	18.03%	3.85%
2004	11.81%	6.90%	2016	6.90%	0.70%
2005	24.58%	21.28%	2017	2.06%	6.49%
2006	20.20%	15.12%	2018	-7.08%	-14.34%
2007	8.33%	6.79%	2019	19.35%	24.78%
2008	-34.55%	-44.37%	2020	15.06%	-5.14%
2009	15.47%	21.14%	2021	21.21%	20.99%
2010	16.24%	-5.81%	2022	-15.24%	-11.74%

Recent Cycle Stages

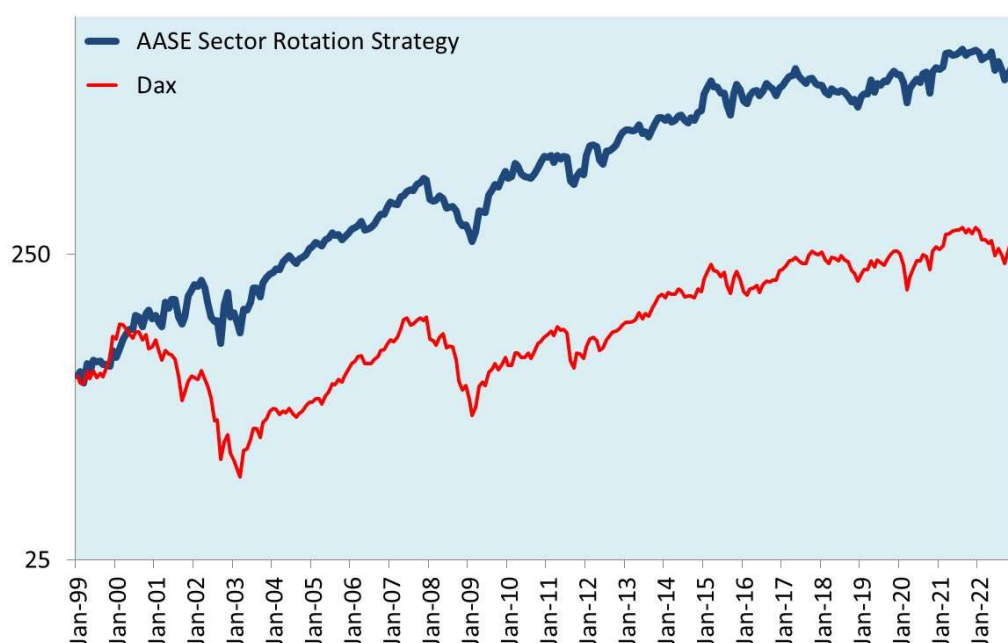
		Subsequent Month Return	Stoxx Return
Dec-21	STAGE 3	5.6%	5.8%
Jan-22	STAGE 3	-0.17%	-2.88%
Feb-22	STAGE 3	-5.8%	-6.0%
Mar-22	STAGE 4	-0.81%	-0.55%
Apr-22	STAGE 4	0.8%	-2.6%
May-22	STAGE 4	-1.73%	-0.36%
Jun-22	STAGE 4	-6.7%	-8.8%
Jul-22	STAGE 4	4.93%	7.33%
Aug-22	STAGE 4	-5.9%	-5.1%
Sep-22	STAGE 4	-6.11%	-5.66%
Oct-22	STAGE 1	3.7%	9.0%
Nov-22	STAGE 1	5.22%	9.60%
Dec-22	STAGE 1	-2.7%	-4.3%

Germany

For the month of February our business cycle leading index indicates that the German economic cycle **remains in Stage 1** (see **Notes for weightings*). Historically sectors which have performed well in this stage include:

- Consumer Staples
- Health
- Telecom

Below we present the proforma results of our sector selection strategy for the Eurozone.



ANALYSIS* Jan-1999 to Dec-2022	AASE Approach*	Dax
CAGR	10.0%	4.2%
Max Drawdown	-37.9%	-68.3%
Std Dev	21.5%	20.8%
Return/Drawdown	0.26	0.06
Sharpe 3%	0.33	0.06
% Positive Years	79.2%	70.8%
2022	-16.2%	-12.3%
2021	14.1%	15.8%
1 Year Return	-16.2%	-12.3%
3 Year Return	0.9%	5.1%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	Dax		AASE Approach	Dax
1999	14.86%	31.95%	2011	-13.02%	-14.69%
2000	26.94%	-7.54%	2012	37.77%	29.06%
2001	24.04%	-19.79%	2013	12.19%	25.48%
2002	-18.24%	-43.94%	2014	5.44%	2.65%
2003	38.13%	37.08%	2015	17.25%	9.56%
2004	21.10%	7.34%	2016	1.19%	6.87%
2005	12.11%	27.07%	2017	1.94%	12.51%
2006	22.40%	21.98%	2018	-15.19%	-18.26%
2007	21.99%	22.29%	2019	27.82%	25.48%
2008	-28.88%	-40.37%	2020	5.46%	3.55%
2009	50.12%	23.85%	2021	14.14%	15.79%
2010	11.76%	16.06%	2022	-16.16%	-12.35%

Recent Cycle Stages

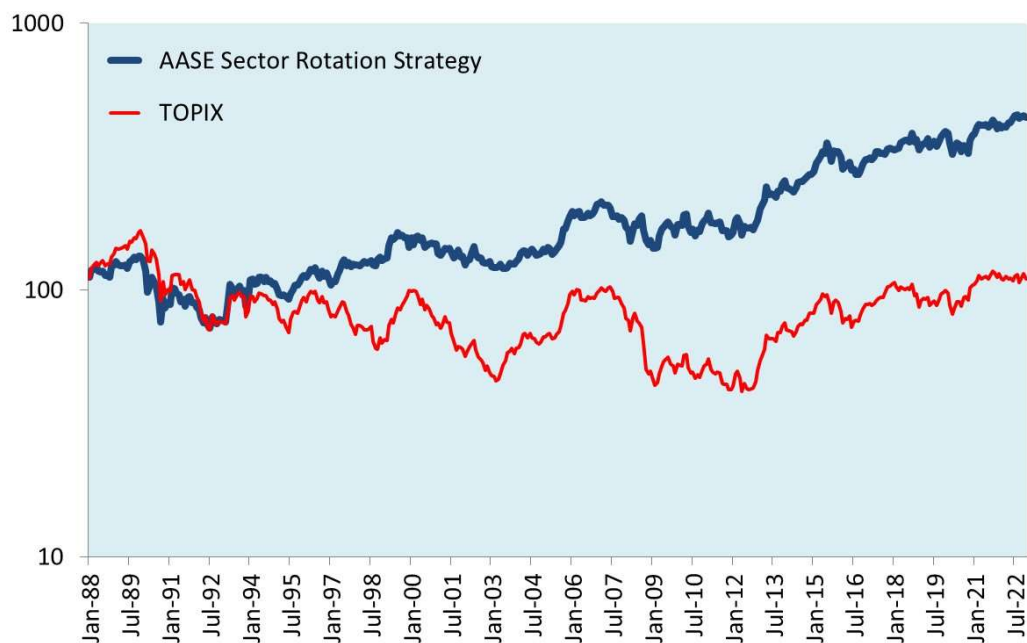
		Subsequent Month Return	Dax Return
Dec-21	STAGE 4	1.9%	5.2%
Jan-22	STAGE 1	-2.19%	-2.60%
Feb-22	STAGE 1	-4.9%	-6.5%
Mar-22	STAGE 1	1.65%	-0.32%
Apr-22	STAGE 1	0.8%	-2.2%
May-22	STAGE 1	2.92%	2.06%
Jun-22	STAGE 2	-12.6%	-11.2%
Jul-22	STAGE 2	6.61%	5.48%
Aug-22	STAGE 2	-6.2%	-4.8%
Sep-22	STAGE 1	-7.23%	-5.61%
Oct-22	STAGE 1	4.9%	9.4%
Nov-22	STAGE 1	5.07%	8.63%
Dec-22	STAGE 1	-4.3%	-3.3%

Japan

For the month of February our business cycle leading index indicates that the Japanese economic cycle **rotates into Stage 2** (see **Notes for weightings*). Historically sectors which have performed well in this stage include:

- Consumer Discretionary
- Technology
- Telecom
- Industrials
- Basic Materials
- Oil & Gas

Below we present the proforma results of our sector selection strategy for Japan.



ANALYSIS	AASE Approach*	TOPIX
Jan-1988 to Dec-2022		
CAGR*	4.35%	0.26%
Max Drawdown	-46.3%	-75.0%
Std Dev	16.9%	18.5%
Return/Drawdown	0.09	0.00
Sharpe 3%	0.08	-0.15
% Positive Years	70.6%	55.9%
2022	6.2%	-5.1%
2021	10.1%	10.4%
1 Year Return	6.2%	-5.1%
3 Year Return	12.9%	9.9%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	Topix		AASE Approach	Topix
1988	24.48%	1900	2006	11.02%	1.90%
1989	7.62%	22.25%	2007	-12.94%	-12.22%
1990	-33.15%	-39.83%	2008	-15.68%	-41.77%
1991	0.21%	-1.10%	2009	14.59%	5.63%
1992	-14.40%	-23.74%	2010	3.10%	-0.97%
1993	21.38%	10.07%	2011	-11.92%	-18.94%
1994	13.82%	8.32%	2012	13.75%	18.01%
1995	5.47%	1.19%	2013	41.10%	51.46%
1996	0.05%	-6.77%	2014	5.56%	8.08%
1997	10.79%	-20.12%	2015	21.61%	9.93%
1998	3.89%	-7.49%	2016	-6.37%	-1.85%
1999	12.18%	58.44%	2017	9.44%	19.69%
2000	3.26%	-25.46%	2018	-1.00%	-17.80%
2001	-10.21%	-19.59%	2019	17.63%	15.21%
2002	-4.62%	-18.30%	2020	-3.46%	4.84%
2003	0.29%	23.76%	2021	10.13%	10.40%
2004	10.53%	10.15%	2022	6.20%	-5.05%
2005	33.17%	43.50%			

Recent Cycle Stages

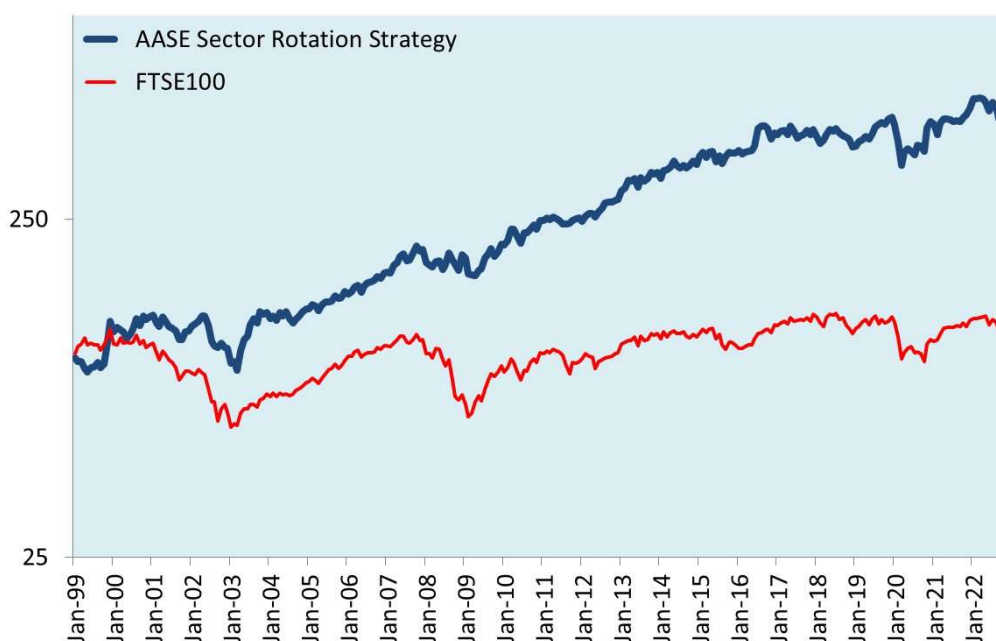
		Subsequent Month Return	Topix Return
Dec-21	STAGE 3	4.0%	3.3%
Jan-22	STAGE 4	-3.49%	-4.84%
Feb-22	STAGE 4	1.8%	-0.5%
Mar-22	STAGE 1	-0.57%	3.15%
Apr-22	STAGE 1	3.4%	-2.4%
May-22	STAGE 1	0.25%	0.69%
Jun-22	STAGE 1	3.5%	-2.2%
Jul-22	STAGE 1	2.43%	3.71%
Aug-22	STAGE 1	1.2%	1.2%
Sep-22	STAGE 1	-3.49%	-6.48%
Oct-22	STAGE 1	1.5%	5.1%
Nov-22	STAGE 1	1.08%	2.91%
Dec-22	STAGE 1	-1.5%	-4.7%

UK

For the month of February our business cycle leading index indicates that the UK economic cycle **remains in Stage 1** (see **Notes for weightings*). Historically sectors which have performed well in this stage include:

- Consumer Staples
- Health

Below we present the proforma results of our sector selection strategy for the UK.



ANALYSIS Jan-1999 to Dec-2022	AASE Approach*	FTSE100
CAGR*	7.3%	1.0%
Max Drawdown	-31.0%	-48.5%
Std Dev	14.9%	13.6%
Return/Drawdown	0.24	0.02
Sharpe 3%	0.29	-0.15
% Positive Years	75.0%	62.5%
2022	-0.7%	0.9%
2021	9.8%	14.3%
1 Year Return	-0.7%	0.9%
3 Year Return	5.6%	-1.2%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	FTSE100		AASE Approach	FTSE100
1999	19.42%	6.32%	2011	1.75%	-5.55%
2000	3.17%	-10.21%	2012	13.43%	5.84%
2001	-9.15%	-16.15%	2013	20.49%	14.43%
2002	-11.55%	-24.48%	2014	5.09%	-2.71%
2003	27.94%	13.62%	2015	8.16%	-4.93%
2004	2.34%	7.54%	2016	14.94%	14.43%
2005	13.04%	16.71%	2017	2.64%	7.63%
2006	13.24%	10.71%	2018	-11.21%	-12.48%
2007	17.24%	3.80%	2019	22.29%	12.10%
2008	-3.61%	-31.33%	2020	-3.19%	-14.34%
2009	7.77%	22.07%	2021	9.82%	14.30%
2010	17.30%	9.00%	2022	-0.67%	0.91%

Recent Cycle Stages

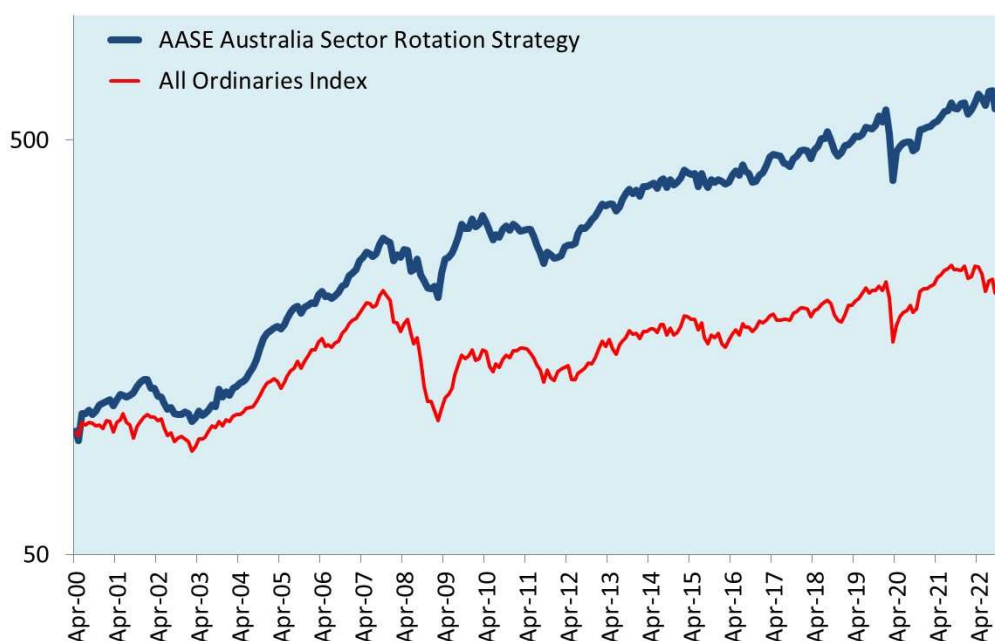
		Subsequent Month Return	FTSE100 Return
Dec-21	STAGE 4	4.6%	4.6%
Jan-22	STAGE 3	6.16%	1.08%
Feb-22	STAGE 3	0.5%	-0.1%
Mar-22	STAGE 3	0.31%	0.77%
Apr-22	STAGE 3	-0.5%	0.4%
May-22	STAGE 4	-2.47%	0.84%
Jun-22	STAGE 4	-5.4%	-5.8%
Jul-22	STAGE 4	5.84%	3.54%
Aug-22	STAGE 4	-3.0%	-1.9%
Sep-22	STAGE 4	-8.05%	-5.36%
Oct-22	STAGE 4	1.6%	2.9%
Nov-22	STAGE 4	5.90%	6.74%
Dec-22	STAGE 1	-0.5%	-1.6%

Australia

For the month of February our business cycle leading index indicates that the Australian economic cycle **rotates into Stage 1** (see **Notes for weightings*). Historically sectors which have performed well in this stage include

- Consumer Staples
- Health
- Utilities

Below we present the proforma results of our sector selection strategy for Australia.



ANALYSIS	AASE Approach*	All Ords Index
Apr-2000 to Dec-2022		
CAGR*	8.55%	3.74%
Maximum Drawdown	-32.4%	-51.4%
Standard Deviation	14.2%	13.8%
Return/Drawdown	0.26	0.07
Sharpe 3%	0.39	0.05
% Positive Years	73.9%	69.6%
2022	5.0%	-7.2%
2021	15.6%	13.6%
1 Year Return	5.0%	-7.2%
3 Year Return	17.0%	6.2%
Correlation	1.00	0.83

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	All Ordinaries		AASE Approach	All Ordinaries
2000	16.11%	0.68%	2012	26.72%	13.47%
2001	13.97%	6.51%	2013	15.24%	14.76%
2002	-16.71%	-11.44%	2014	4.50%	0.66%
2003	11.85%	11.11%	2015	1.67%	-0.82%
2004	38.58%	22.60%	2016	2.43%	7.01%
2005	16.89%	16.18%	2017	14.60%	7.84%
2006	17.99%	19.87%	2018	-1.20%	-7.42%
2007	20.32%	13.76%	2019	18.54%	19.14%
2008	-22.95%	-43.01%	2020	-3.61%	0.71%
2009	47.47%	33.43%	2021	15.60%	13.56%
2010	-2.87%	-0.73%	2022	5.00%	-7.17%
2011	-17.28%	-15.18%			

Recent Cycle Stages

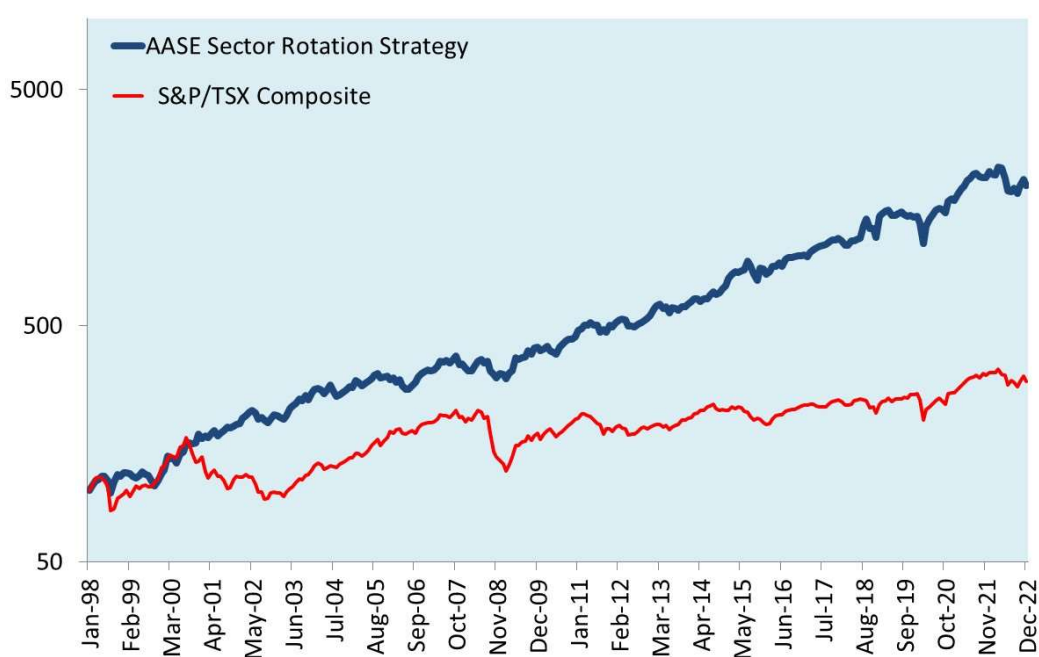
		Subsequent Month Return	All Ords Return
Dec-21	STAGE 1	0.42%	2.53%
Jan-22	STAGE 1	-6.39%	-6.57%
Feb-22	STAGE 1	2.79%	0.76%
Mar-22	STAGE 1	3.95%	6.37%
Apr-22	STAGE 1	5.00%	-0.83%
May-22	STAGE 1	-2.67%	-3.49%
Jun-22	STAGE 1	-3.57%	-9.51%
Jul-22	STAGE 2	7.92%	6.33%
Aug-22	STAGE 2	0.67%	0.73%
Sep-22	STAGE 2	-9.72%	-7.58%
Oct-22	STAGE 2	6.67%	5.63%
Nov-22	STAGE 3	4.85%	6.04%
Dec-22	STAGE 3	-2.92%	-3.46%

Canada

For the month of February our business cycle leading index indicates that the Canadian economic cycle **remains in Stage 1** (see **Notes for weightings*). Historically sectors which have performed well in this stage include:

- Consumer Staples
- Health

Below we present the proforma results of our sector selection strategy for Canada.



ANALYSIS Jan-1998 to Dec-2022	AASE Approach*	S&P/TSX
CAGR*	12.7%	4.4%
Max Drawdown	-28.3%	-45.1%
Std Dev	15.8%	14.8%
Return/Drawdown	0.45	0.10
Sharpe 3%	0.61	0.09
% Positive Years	91.7%	70.8%
2022	-12.6%	-8.7%
2021	30.4%	21.7%
1 Year Return	-12.6%	-8.7%
3 Year Return	36.9%	13.6%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	S&P/TSX		AASE Approach	S&P/TSX
1999	18.54%	0.44%	2011	9.82%	-11.07%
2000	47.02%	6.18%	2012	11.77%	4.00%
2001	9.78%	-13.94%	2013	11.69%	9.55%
2002	10.11%	-13.97%	2014	19.56%	7.42%
2003	24.58%	24.29%	2015	17.68%	-11.09%
2004	6.07%	12.48%	2016	14.01%	17.51%
2005	10.80%	21.91%	2017	18.05%	6.03%
2006	4.35%	14.51%	2018	0.92%	-11.64%
2007	8.14%	7.16%	2019	21.69%	19.13%
2008	-9.03%	-35.03%	2020	20.21%	2.17%
2009	29.37%	30.69%	2021	30.35%	21.74%
2010	10.80%	14.45%	2022	-12.64%	-8.66%

Recent Cycle Stages

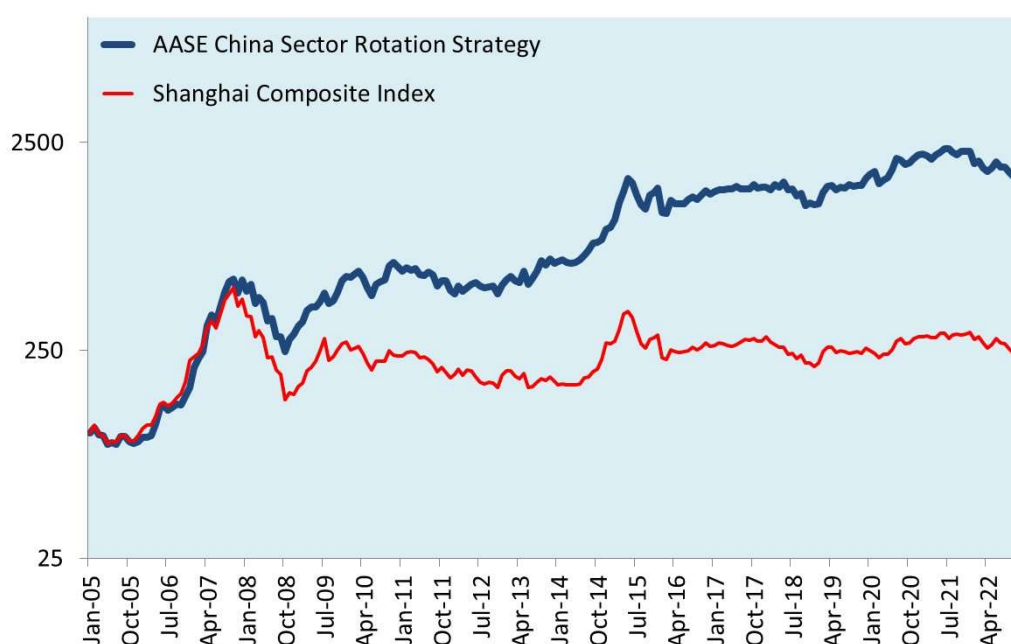
		Subsequent Month Return	S&P/TSX Return
Dec-21	STAGE 4	6.77%	2.72%
Jan-22	STAGE 4	-2.44%	-0.59%
Feb-22	STAGE 4	-0.79%	0.13%
Mar-22	STAGE 4	7.90%	3.62%
Apr-22	STAGE 4	-0.64%	-5.15%
May-22	STAGE 1	-10.35%	-0.16%
Jun-22	STAGE 1	-11.11%	-9.01%
Jul-22	STAGE 1	-1.12%	4.41%
Aug-22	STAGE 1	3.78%	-1.84%
Sep-22	STAGE 1	-5.37%	-4.59%
Oct-22	STAGE 2	8.00%	5.32%
Nov-22	STAGE 2	6.17%	5.29%
Dec-22	STAGE 2	-5.13%	-5.22%

China

For the month of February our business cycle leading index indicates that the Chinese economic cycle **rotates into Stage 1** (see **Notes for weightings*). Historically sectors which have performed well in this stage include

- Consumer Staples
- Utilities
- Health

Below we present the proforma results of our sector selection strategy for China.



ANALYSIS	AASE Approach*	SSE Composite
Jan-1999 to Dec-2022		
CAGR*	17.5%	5.5%
Max Drawdown	-55.4%	-71.0%
Std Dev	27.7%	26.3%
Return/Drawdown	0.32	0.08
Sharpe 3%	0.52	0.09
% Positive Years	66.7%	55.6%
2022	-21.5%	-15.1%
2021	4.4%	4.8%
1 Year Return	-21.5%	-15.1%
3 Year Return	7.0%	1.3%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	SSE Composite
2005	-8.85%	-2.58%
2006	81.38%	130.43%
2007	231.43%	96.66%
2008	-45.54%	-65.39%
2009	90.73%	79.98%
2010	10.67%	-14.31%
2011	-23.19%	-21.68%
2012	6.44%	3.17%
2013	26.84%	-6.75%
2014	47.07%	52.87%
2015	56.66%	9.41%
2016	-6.65%	-12.31%
2017	8.78%	6.56%
2018	-17.70%	-24.59%
2019	32.91%	22.30%
2020	30.56%	13.87%
2021	4.38%	4.80%
2022	-21.49%	-15.13%

Recent Cycle Stages

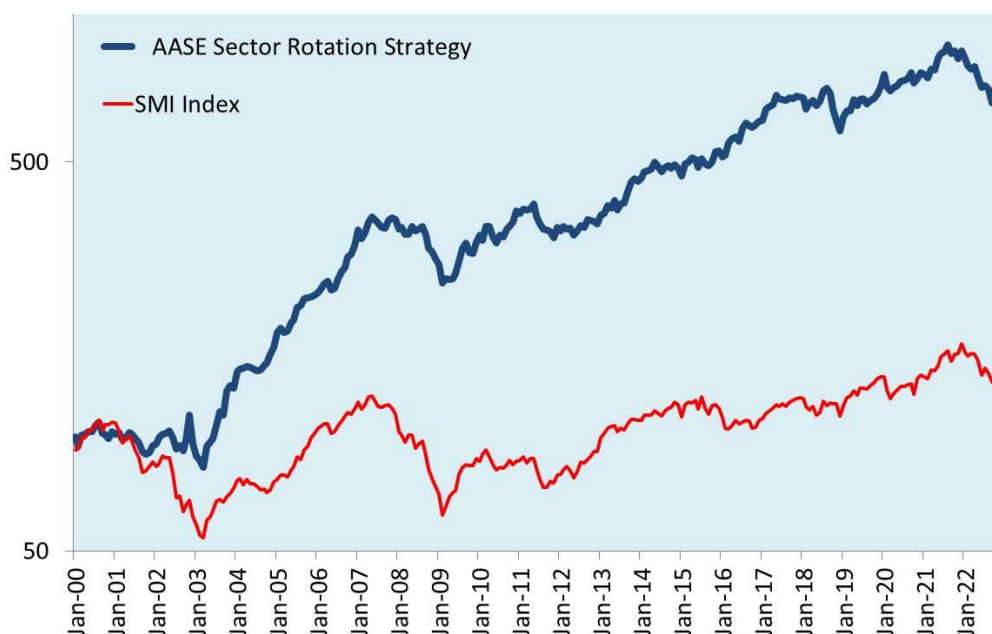
		Subsequent Month Return	SSE Composite Return
Dec-21	STAGE 2	0.28%	2.13%
Jan-22	STAGE 1	-13.19%	-7.65%
Feb-22	STAGE 1	3.46%	3.00%
Mar-22	STAGE 1	-7.40%	-6.07%
Apr-22	STAGE 1	-3.90%	-6.31%
May-22	STAGE 1	3.56%	4.57%
Jun-22	STAGE 1	7.49%	6.66%
Jul-22	STAGE 1	-5.91%	-4.28%
Aug-22	STAGE 1	0.15%	-1.57%
Sep-22	STAGE 1	-5.59%	-5.55%
Oct-22	STAGE 1	-4.90%	-4.33%
Nov-22	STAGE 2	6.94%	8.91%
Dec-22	STAGE 2	-2.48%	-1.97%

Switzerland

For the month of February our business cycle index indicates that the Swiss economic cycle **remains in Stage 3** (see **Notes for weightings*). Historically sectors which have performed well in this stage include:

- Cyclical Goods & Services
- Telecom
- Financial Services
- Banks
- Basic Resources
- Industrial
- Construction
- Retail

Below we present the proforma results of our sector selection strategy for Switzerland.



ANALYSIS Jan-2000 to Dec-2022	AASE Approach*	SMI Index
CAGR*	9.18%	1.53%
Maximum Drawdown	-32.3%	-50.4%
Standard Deviation	14.7%	13.3%
Return/Drawdown	0.28	0.03
Sharpe 3%	0.42	-0.11
% Positive Years	78.3%	56.5%
2022	-21.9%	-16.7%
2021	13.6%	20.3%
1 Year Return	-21.9%	-16.7%
3 Year Return	-3.5%	1.1%

*Compound Annual Growth Rate

Yearly Analysis

	AASE Approach	SMI Index		AASE Approach	SMI Index
2000	1.13%	7.47%	2012	2.04%	14.93%
2001	-7.54%	-21.11%	2013	28.98%	20.24%
2002	1.08%	-27.85%	2014	8.17%	9.51%
2003	38.44%	18.51%	2015	10.53%	-1.84%
2004	27.87%	3.74%	2016	19.47%	-6.78%
2005	35.62%	33.21%	2017	15.36%	14.14%
2006	34.43%	15.85%	2018	-18.11%	-10.15%
2007	16.54%	-3.43%	2019	29.48%	25.95%
2008	-20.60%	-34.77%	2020	8.79%	0.82%
2009	10.26%	18.27%	2021	13.58%	20.29%
2010	20.18%	-1.68%	2022	-21.88%	-16.67%
2011	-9.27%	-7.77%			

Recent Cycle Stages

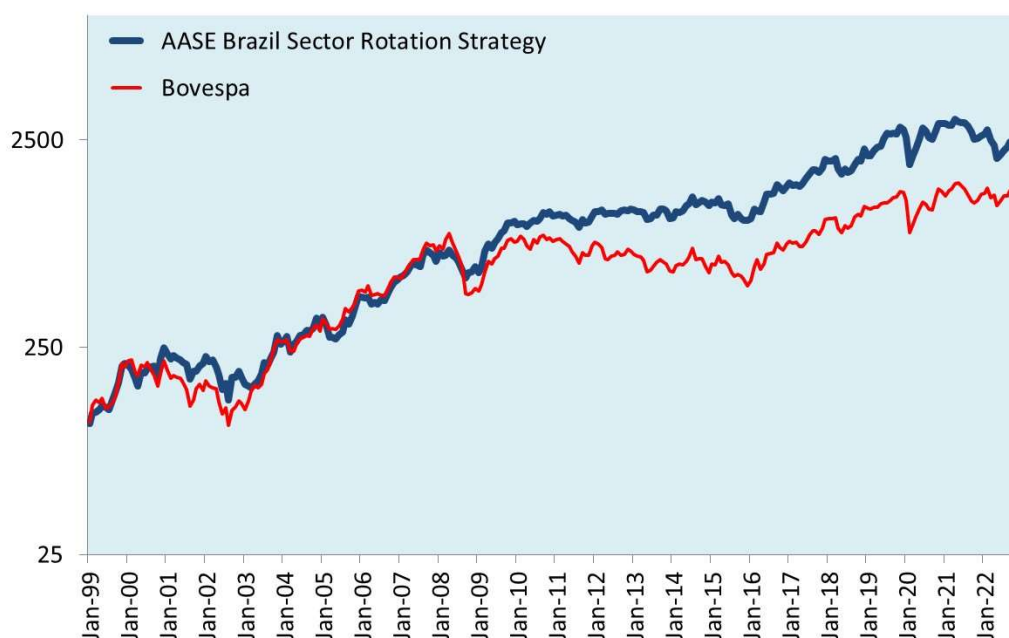
		Subsequent Month Return	SMI Return
Dec-21	STAGE 2	4.68%	5.89%
Jan-22	STAGE 2	-4.45%	-5.04%
Feb-22	STAGE 2	-4.18%	-1.96%
Mar-22	STAGE 2	-1.77%	1.46%
Apr-22	STAGE 1	1.36%	-0.27%
May-22	STAGE 1	-6.24%	-4.27%
Jun-22	STAGE 1	-5.65%	-7.49%
Jul-22	STAGE 2	1.04%	3.77%
Aug-22	STAGE 2	-1.83%	-2.61%
Sep-22	STAGE 2	-8.08%	-5.41%
Oct-22	STAGE 2	2.70%	5.46%
Nov-22	STAGE 2	7.18%	2.77%
Dec-22	STAGE 2	-3.46%	-3.58%

Brazil

For the month of February our business cycle leading index indicates that the Brazilian economic cycle **rotates into Stage 3** (see **Notes for weightings*). Historically sectors which have performed well in this stage include

- Consumer Discretionary
- Consumer Staples
- Financials
- Telecom
- Oil & Gas
- Basic Materials

Below we present the proforma results of our sector selection strategy for Brazil.



ANALYSIS*	AASE Approach*	Bovespa
Jan-1999 to Dec-2022		
CAGR*	13.95%	11.47%
Max Drawdown	-44.0%	-51.6%
Std Dev	23.38%	25.35%
Return/Drawdown	0.32	0.22
Sharpe 3%	0.47	0.33
% Positive Years	70.8%	62.5%
2022	-10.67%	4.69%
2021	-15.0%	-11.9%
1 Year Return	-10.67%	4.69%
3 Year Return	-21.3%	-5.1%

*Compound Annual Growth Rate

Yearly Analysis

	Model	Bovespa		Model	Bovespa
1999	109.25%	100.57%	2011	-11.53%	-18.11%
2000	8.74%	-10.72%	2012	13.64%	7.40%
2001	-7.47%	-11.02%	2013	0.09%	-15.50%
2002	-5.47%	-17.01%	2014	9.85%	-2.91%
2003	48.16%	97.33%	2015	-18.28%	-13.31%
2004	20.88%	17.81%	2016	39.05%	38.93%
2005	12.84%	27.71%	2017	29.10%	26.86%
2006	33.01%	32.93%	2018	7.76%	15.03%
2007	34.41%	43.65%	2019	46.15%	31.58%
2008	-16.67%	-41.22%	2020	3.56%	2.92%
2009	72.39%	82.66%	2021	-14.98%	-11.93%
2010	13.24%	1.04%	2022	-10.67%	4.69%

Recent Cycle Stages

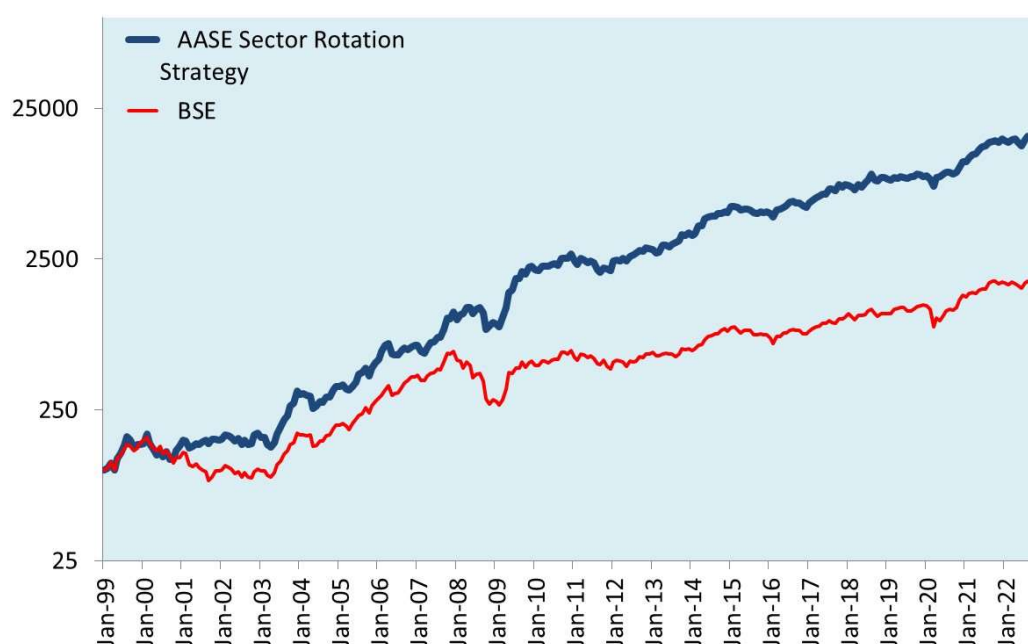
		Subsequent Month Return	Stoxx Return
Dec-21	STAGE 1	0.5%	2.9%
Jan-22	STAGE 1	2.93%	6.98%
Feb-22	STAGE 1	2.1%	0.9%
Mar-22	STAGE 1	4.94%	6.06%
Apr-22	STAGE 1	-11.0%	-10.1%
May-22	STAGE 1	-5.88%	3.22%
Jun-22	STAGE 2	-13.3%	-11.5%
Jul-22	STAGE 2	4.25%	4.69%
Aug-22	STAGE 2	5.2%	6.2%
Sep-22	STAGE 2	3.37%	0.47%
Oct-22	STAGE 2	6.2%	5.5%
Nov-22	STAGE 2	-2.88%	-3.06%
Dec-22	STAGE 2	-4.6%	-2.4%

India

For the month of February our business cycle leading index indicates that the Indian economic cycle **remains in Stage 4** (see **Notes for weightings*). Historically sectors which have performed well in this stage include

- Consumer Staples
- Health

Below we present the proforma results of our sector selection strategy for India.



ANALYSIS*	AASE Approach*	BSE
Jan-1999 to Dec-2022		
CAGR	23.6%	12.9%
Max Drawdown	-32.6%	-56.2%
Std Dev	23.3%	22.6%
Return/Drawdown	0.72	0.23
Sharpe 3%	0.88	0.44
% Positive Years	87.5%	79.2%
2022	0.9%	4.4%
2021	41.6%	22.0%
1 Year Return	0.9%	4.4%
3 Year Return	79.6%	47.5%

*Compound Annual Growth Rate

Yearly Analysis

	Model	BSE		Model	BSE
1999	50.12%	57.00%	2011	-22.58%	-24.64%
2000	-2.31%	-20.65%	2012	39.99%	25.70%
2001	9.58%	-17.87%	2013	25.89%	8.98%
2002	10.72%	3.52%	2014	37.43%	29.89%
2003	91.59%	72.89%	2015	1.50%	-5.03%
2004	7.00%	13.08%	2016	6.25%	1.95%
2005	43.28%	42.33%	2017	42.24%	27.91%
2006	30.15%	46.70%	2018	11.58%	5.91%
2007	66.58%	47.15%	2019	1.21%	14.38%
2008	-15.08%	-52.45%	2020	25.64%	15.75%
2009	136.46%	81.03%	2021	41.64%	21.99%
2010	21.26%	17.43%	2022	0.91%	4.44%

Recent Cycle Stages

		Subsequent Month Return	BSE Return
Dec-21	STAGE 2	6.22%	2.08%
Jan-22	STAGE 2	-2.7%	-0.4%
Feb-22	STAGE 3	-3.44%	-3.05%
Mar-22	STAGE 3	4.1%	4.1%
Apr-22	STAGE 3	1.48%	-2.57%
May-22	STAGE 3	-4.6%	-2.6%
Jun-22	STAGE 3	-5.51%	-4.58%
Jul-22	STAGE 3	10.5%	8.6%
Aug-22	STAGE 3	5.44%	3.42%
Sep-22	STAGE 3	-1.7%	-3.5%
Oct-22	STAGE 4	0.67%	5.78%
Nov-22	STAGE 4	1.4%	3.9%
Dec-22	STAGE 4	-3.66%	-3.58%

South Korea

For the month of February our business cycle leading index indicates that the South Korean economic cycle **rotates into Stage 1** (see **Notes for weightings*). Historically sectors which have performed well in this stage include

- Consumer Staples
- Healthcare
- Utilities

Below we present the proforma results of our sector selection strategy for South Korea.



ANALYSIS May-1999 to Dec-2022	AASE Approach*	S.Koreal Total Return
CAGR*	17.12%	5.76%
Max Drawdown	-46.8%	-60.6%
Std Dev	25.5%	24.1%
Return/Drawdown	0.37	0.10
Sharpe 3%	0.55	0.11
% Positive Years	75.0%	70.8%
2022	-12.3%	-25.0%
2021	15.2%	5.0%
1 Year Return	-12.3%	-25.0%
3 Year Return	27.1%	6.7%

*Compound Annual Growth Rate

Yearly Analysis

	Model	S.Korea Total Return		Model	S.Korea Total Return
1999	70.03%	17.99%	2011	13.59%	-9.41%
2000	-40.48%	-59.62%	2012	22.97%	10.33%
2001	61.64%	50.87%	2013	4.81%	1.83%
2002	-20.57%	-10.74%	2014	-13.17%	-4.83%
2003	45.11%	31.35%	2015	48.17%	4.09%
2004	60.28%	12.13%	2016	8.67%	7.07%
2005	75.76%	60.70%	2017	23.59%	27.46%
2006	4.23%	5.38%	2018	-9.77%	-16.66%
2007	43.47%	35.98%	2019	5.15%	11.46%
2008	-20.31%	-41.16%	2020	25.84%	35.44%
2009	58.17%	49.40%	2021	15.17%	4.97%
2010	21.03%	20.17%	2022	-12.30%	-24.97%

Recent Cycle Stages

		Subsequent Month Return	S.Korea Total Return
Dec-21	STAGE 4	4.4%	6.2%
Jan-22	STAGE 4	-10.86%	-9.06%
Feb-22	STAGE 4	8.3%	1.6%
Mar-22	STAGE 4	0.09%	1.93%
Apr-22	STAGE 4	0.7%	-2.8%
May-22	STAGE 4	-1.71%	-0.18%
Jun-22	STAGE 4	-6.9%	-13.5%
Jul-22	STAGE 4	3.28%	5.80%
Aug-22	STAGE 4	-1.6%	0.3%
Sep-22	STAGE 4	-9.33%	-13.54%
Oct-22	STAGE 4	-0.4%	6.7%
Nov-22	STAGE 4	8.37%	6.69%
Dec-22	STAGE 4	-0.9%	-9.1%

The Sector Selection Framework

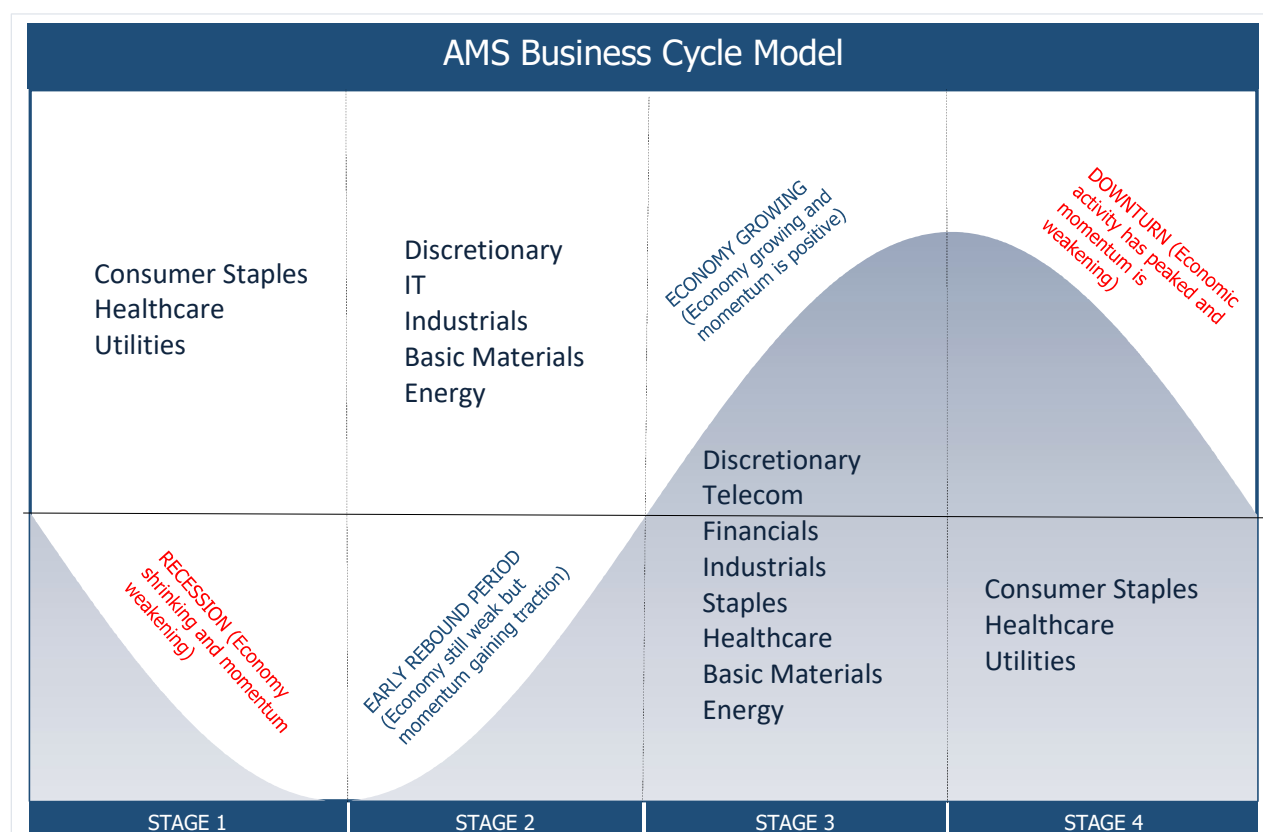
Applying the AASE Business Cycle Approach to Sector Selection

Some sectors of the market tend to perform better in different stages of the economic cycle. Not only is this a non-contentious belief, it is empirically testable. But is it possible to both forecast the stages of the business cycle and simultaneously determine the optimal sector configuration for those forecast stages?

We believe that it is.

The central reason for this assertion is that, because money supply is a leading indicator, one can utilize changes in money supply to establish a forward looking view as to which stage of the cycle we anticipate the economy to be entering. By modifying the standard money supply definitions to better reflect the true nature of money we are able to better predict the business cycle and its stages. As can be seen below this approach has delivered reliable forecasts over many decades. If we expect the economy to be in Stage 1, for example, for the next three months then we can position ourselves accordingly in sectors which have performed best historically in Stage 1.

A visual representation of our cycle staging approach is shown below along with sectors which tend to historically outperform in each respective stage.



Cycle Stage 1: *Recessionary conditions – optimal to be defensive*

In Stage 1 of the AASE cycle the economy is declining at a rapid pace and, in general, it is better to adopt a defensive strategy. This typically entails allocations to very defensive equity sectors such as Consumer Staples, Healthcare and Utilities.

Cycle Stage 2: *Early rebound period*

In Stage 2 of the AASE cycle the economy is declining at a slower pace or may be starting to show signs of positive growth. The economy at this stage is commonly patchy but with the emergence of some momentum tends to benefit the more cyclical sectors. Different economies, with different industrial structures, will have slight variations as to which sectors are, in their cases, more “cyclical” when compared to other economies.

On occasions there may be a pickup in commodity prices (although this is more common in Stage 3) and thus may also benefit commodity related stocks.

Cycle Stage 3: *Late recovery period*

In Stage 3 of the AASE cycle the economy is expanding at a more rapid pace. Now the cyclicals may be performing well but the risks are increasing and some of the more “non-cyclical” sectors may come into favour. Often industrials will be performing well, enjoying the pull-up demand from other sectors.

At this stage it is often common to see increases in commodity prices (which may also appear earlier in the cycle in some economies). Therefore allocations to commodity related stocks are more likely in this stage.

Cycle Stage 4: *Downturn*

In Stage 4 of the AASE cycle the economy is growing at a slower pace as measured economic activity has peaked and begins to weaken. At this time a defensive posture is warranted. Sectors which perform relatively well include Consumer Staples, Healthcare and Utilities.

For equity investors what this means is that the money supply can indicate – many months ahead – the stages of the economic cycle and the sectors that have done best in those stages. By utilizing this information an investor can be positioned in the relevant sectors – those which have historically performed well in those stages. This allows allocations to the respective sectors either via sector replication (e.g. sector ETFs or baskets), or via individual stock selection from within the sectors based on investor-preferred criteria (e.g. value).

To summarize, then, by means of our proprietary monetary measure we forecast the likely stage of the cycle in the months ahead. Once the stage is established an asset mix is selected in accordance with the expected stage. Note that the asset mix is established beforehand. Also, note that once the asset mix is established we don't change it while that stage is in force. The only thing that is subject to change is the phase of the cycle.

“For equity investors what this means is that changes in money supply can indicate – many months ahead – the stages of the economic cycle and the sectors that have done best in those stages.”

*Notes

Sector allocations are equally weighted, however in Stage 2 and Stage 3 the allocation towards commodity related sectors (Energy and Basic Materials) is illustrated below

		Stage 1	Stage 2	Stage 3	Stage 4
USA	Sectors	100%	90%	50%	100%
	Commodity Sectors	-	10%	50%	-
Eurozone	Sectors	100%	90%	70%	100%
	Commodity Sectors	-	10%	30%	-
Japan	Sectors	100%	90%	80%	100%
	Commodity Sectors	-	10%	20%	-
UK	Sectors	100%	90%	70%	100%
	Commodity Sectors	-	10%	30%	-
Australia	Sectors	100%	90%	70%	100%
	Commodity Sectors	-	10%	30%	-
Canada	Sectors	100%	90%	70%	100%
	Commodity Sectors	-	10%	30%	-
China	Sectors	100%	90%	70%	100%
	Commodity Sectors	-	10%	30%	-
Switzerland	Sectors	100%	90%	70%	100%
	Commodity Sectors	-	10%	30%	-

Assumed transactions costs: 0.25%.

Proforma allocations of assets as indicated by the AASE process. Allocations across stock sectors.

Equity Sector Sources:

- S&P500 Sectors (USA)
- MSCI EMU Sectors (Eurozone)
- MSCI Germany Sectors (Germany)
- S&P/Topix Sectors (Japan)
- MSCI UK Sectors (UK)
- S&P/ASX200 Sectors (Australia)
- S&P/TSE Sectors (Canada)
- SSE Sectors (China)
- SWX Sectors (Switzerland)
- MSCI Brazil Sectors (Brazil)
- MSCI India Sectors (India)
- T.Reuters S.Korea Sectors (South Korea)

No rebalancing unless sector allocations changed.

Sectors defined as:

All Countries

Consumer Discretionary
 Consumer Staples
 Healthcare
 Industrials
 Basic Materials
 Energy
 IT
 Telecommunication Services
 Financials
 Utilities

Switzerland

Cyclical Goods & Services
 Non-Cyclical Goods & Services
 Healthcare
 Industrials
 Basic Resources
 Construction
 Information Technology
 Telecommunication Services
 Financial Services
 Banks
 Utilities
 Retail

This analysis does not represent an actual investment portfolio but rather the application of the AASE process to historical data. This is for information only and is not investment advice. No action should be taken based on this analysis.

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